

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. < MO-R409xxx >

Owner: < name >
Address: < address >

Continuing Authority: < name, or Same as above >
Address: < address, or Same as above >

Facility Name: < name >
Facility Address: < physical address >

Legal Description: ¼, ¼, ¼, Sec. xx, TxxN, RxxW, < county > County

Receiving Stream: < receiving stream > < (U, C, P, L1, L2, L3) >
First Classified Stream and ID: < 1st classified stream > < (U, C, P, L1, L2, L3) > < (ID number) >
USGS Basin & Sub-watershed No.: < (USGS HUC14 #) >

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Shallow Injection

All Outfalls - In place soil remediation or bioremediation of petroleum contaminated soil and subsoil around storage tanks through injection of materials into strata, which are not aquifers. The limits on page 2 of 4 apply to any water withdrawn from the site and discharged to the waters of the state.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

December 3, 1999

Effective Date

Issue Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

December 2, 2004

Expiration Date
MO 780-0041 (10-93)

Jim Hull, Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 4	
					PERMIT NUMBER MO-R409xxx	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All Outfalls</u> (Note 1)						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Benzene	mg/L	0.05		0.05	once/quarter**	grab
Toluene	mg/L	*		*	once/quarter**	grab
Ethylbenzene	mg/L	*		*	once/quarter**	grab
Xylene	mg/L	*		*	once/quarter**	grab
Total BETX***	mg/L	0.75		0.75	once/quarter**	grab
Oil and Grease	mg/L	15		10	once/quarter**	grab
Total Petroleum Hydrocarbons (TPH)	mg/L	10		10	once/quarter**	grab
Chemical Oxygen Demand	mg/L	120		90	once/quarter**	grab
Total Suspended Solids	mg/L	80		60	once/quarter**	grab
pH – Units	SU	****		****	once/quarter**	grab
Methyl Tertiary Butyl Ether (MTBE) (Note 2)	mg/L	0.020		0.020	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>< date ></u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED October 1, 1980. AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter as soon as a discharge occurs.
- *** Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene, and xylene.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 – The water tested will be the final water disposed.

Note 2 – Use EPA method 8260A, not 8020/A/21B due to detection limit concerns.

APPLICABILITY

1. This permit allows the placement of remediation materials or chemicals, both inorganic and organic, as well as bacterial agents into the ground in order to enhance or speed the in situ remediation of petroleum contaminated soil and subsoil. This permit is to be used only for petroleum contaminated soils and subsoils. Other contaminants are not covered by this permit and applicants must apply for a site specific permit. Soils contaminated to such an extent that they are considered hazardous in accordance with 40 CFR 261.24 are also ineligible for this permit.
2. This permit does not authorize injection into an aquifer, or allow the injected substances to reach an aquifer.

An aquifer is a subsurface water-bearing bed or stratum of sand, gravel or bedrock which stores or transmits water in recoverable quantities that is presently being utilized or could be utilized as a water source for private or public use. (10 CSR 20-2.010(7). This water does not have to have any (potable) characteristics. Aquifer does not include “perched water” located above a claypan, hardpan, or other relatively impermeable soil layer that is underlaid by another unsaturated soil zone, or the vadose zone.
3. Potential applicants for this general permit are warned that any test hole or boring deeper than 10 feet may require a permit from the Division of Geology and Land Survey.
4. The Missouri Department of Natural Resources may require the owner to apply for an individual State Operating Permit if it determines that the quality of waters of the state require more protection.
5. The owner may apply for an individual State Operating Permit at any time.
6. If at any time the Missouri Department of Natural Resources determines that the quality of the waters of the state are not being adequately protected, this permit will be revoked, the remediation system shall be dismantled and all contaminated soils shall be removed and disposed of in a manner accepted by the Missouri Department of Natural Resources.
7. This permit is not transferable to other owners or operators.

CONSTRUCTION PERMIT EXEMPTION

1. The permittee is exempted from obtaining a construction permit when the requirements of this permit are met.

APPLICATION REQUIREMENTS

1. A geological report, signed by a professional geologist or geological engineer, must accompany the application stating that injection is not to an aquifer and that the injected fluids will not reach an aquifer. This statement must be notarized or stamped with the seal of the geologist or geological engineer.
2. A site map and description of the treatment system must accompany the application.

OPERATION REQUIREMENTS

1. Fluids and chemicals that were injected into the subsurface must be removed to background or pre-injection levels. This must be done using a final pumping or placing the chemicals in a “sock”, which will be removed at the end of the project.
2. The treatment system must be at least 250 feet from any surface waters; 500 feet from any caves, sinkholes, private water supply wells, lakes, or stream intakes; and 1,000 feet from public water supply wells, lakes, or stream intakes.
3. The treatment system must not be located in a wetland nor within the 10-year floodplain of a classified stream.
4. The treatment system, including collection and recirculation piping, shall not be located within 25 vertical feet of an aquifer.
5. Collection or recirculation piping shall be removed when remediation is complete except for any monitoring well installations.
6. The treatment shall reduce the contamination levels to those acceptable by the Department and a final pumping and discharge meets the effluent limit and pumping records indicate that all fluids that are injected or allowed to infiltrate have been substantially removed.
7. Discharges shall not cause violations of the general criteria in the Water Quality Standards at 10 CSR 20-7.031(3).

SAMPLING

Analysis of the injected fluids is not required. This permit requires quarterly sampling of all fluids extracted and discharged at the end of the project.

TERMINATION

If activities covered by this permit have ceased and this permit no longer applies, the permittee shall request termination of this permit. The permittee shall submit Form H, “Termination of a General Permit.”